



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/073,698	02/11/2002	Arto Haapakoski	413-010836-US(PAR)	4406
2512	7590	06/22/2004	EXAMINER	
PERMAN & GREEN 425 POST ROAD FAIRFIELD, CT 06824			TRINH, SONNY	
			ART UNIT	PAPER NUMBER
			2685	
DATE MAILED: 06/22/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/073,698	HAAPAKOSKI, ARTO	
	Examiner	Art Unit	
	Sonny TRINH	2685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 11 February 2002.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-8 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
 5) Claim(s) ____ is/are allowed.
 6) Claim(s) 1,2 and 5, 8 is/are rejected.
 7) Claim(s) 3,4,6 and 7 is/are objected to.
 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 02/11/02 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. ____.
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>02/11/02</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1, 5, 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Wilkinson et al. ("Wilkinson"; U.S. Patent Number 6,381,286).

Regarding claim 1, with reference to figures 2-3 and their descriptions, Wilkinson discloses a method to reduce interference in a radio transmitter employing a Cartesian which comprises, listed in the direction of propagation of signal, at least one differential amplifier (figure 2, element 100,104,118 and 102,106, 120), a modulator (130), first level control unit (inherent), a power amplifier (140), a directional coupler (claim 4) and an antenna as well as a feedback path from the directional coupler to said differential amplifiers (inherent), which feedback path comprises a second level control unit and a demodulator to linearize the radio transmitter (columns 1-3), the method comprising steps: the level of at least one input signal of the said modulator is measured and

Art Unit: 2685

compared to adjust the level of the attenuator (via REF at up-converter 130 in figure 2, see also column 3 lines 18-32).

Regarding **claims 5 and 8**, these claims merely reflect the apparatus to the method claim of claim 1 and are therefore rejected for the same reasons.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over Wilkinson et al. ("Wilkinson"; U.S. Patent Number 6,381,286).

Regarding **claim 2**, Wilkinson discloses the invention but does not disclose that the measures to set the attenuation of the first level control unit being carried out in conjunction with manufacture of the radio transmitter. However, since Wilkinson discloses that "...the selection of the amount of attenuation is provided by control signals from the system controller of the communication system which are stored in the register 166..." (column 6 lines 35-42) (Examiner note: register can be set under software control"), therefore it would have been obvious and well within the level of a person of ordinary skill in the art to set the attenuation of the control unit in conjunction with manufacture of the radio transmitter in order to minimize human intervention (once the radio transmitter is a finished product).

Allowable Subject Matter

3. **Claims 3-4, 6-7** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding **claims 3-4**, the prior art provided numerous examples of minimizing interferences in a transmitter circuit, but failed to disclose or fairly suggest the specific combination of structural and functional limitations set forth in claims 3-4, specifically, wherein the radio transmitter functions according to a system based on time division technology, measures to set the attenuation of the first level control unit being carried out repeatedly in a free time slot (claim 3) or the transmission time slot (claim 4) of said system when the radio transmitter is in operation.

Regarding **claim 6**, the prior art provided numerous examples of minimizing interferences in a transmitter circuit, but failed to disclose or fairly suggest the specific combination of structural and functional limitations set forth in claim 6, specifically, said means to measure the level of at least one input signal of the modulator comprising an analog-to-digital converter and said means to compare the level of at least one input signal of the modulator and to set the attenuation of the first level control unit comprising a processor.

Regarding **claim 7**, the prior art provided numerous examples of minimizing interferences in a transmitter circuit, but failed to disclose or fairly suggest the specific combination of structural and functional limitations set forth in claim 7, specifically, said means to measure the level of at least one input signal of the modulator and to compare the level to a certain reference level, and to set the attenuation of the first level control unit, comprising an analog comparator and amplifier.

Conclusion

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9306, (for formal communications intended for entry, for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, 6th Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sonny TRINH whose telephone number is 703-305-1961. The examiner can normally be reached on Monday-Thursday and on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed URBAN can be reached on 703-305-4385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



SONNY TRINH
PRIMARY EXAMINER

6/14/04